

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-159-AD; Amendment 39-12862; AD 2002-16-23]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-600, -700, -700C, -800, and -900 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes. This action requires repetitive tests of the rudder pedal force or repetitive inspections of the rudder feel and centering unit to determine the condition of the inner spring; corrective action if necessary; and eventual replacement of the spring assembly on the rudder feel and centering unit with a new assembly, which would terminate the repetitive requirements. This action is necessary to prevent reduced rudder pedal feel and centering force, which, combined with failure of the outer spring of the spring assembly, could result in pilot-induced oscillation and consequent loss of control of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective September 3, 2002.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of September 3, 2002.

Comments for inclusion in the Rules Docket must be received on or before October 15, 2002.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-159-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2002-NM-159-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, PO Box 3707, Seattle, Washington 98124-2207. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Technical Information : Douglas Tsuji, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1506; fax (425) 227-1181.

Other Information : Sandi Carli, Airworthiness Directive Technical Editor/Writer; telephone (425) 687-4243, fax (425) 227-1232. Questions or comments may also be sent via the Internet using the following address: sandi.carli@faa.gov. Questions or comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

SUPPLEMENTARY INFORMATION: The FAA has received reports of low rudder pedal forces caused by a broken inner spring in the rudder feel and centering unit on some Boeing Model 737-600, -700, -700C, -800, and -900 series airplanes. The rudder feel and centering unit has two springs—an inner spring and an outer spring. Investigation of the broken springs revealed an incorrect manufacturing process used on a specific batch of inner springs. The outer springs were processed in separate lots, and no outer spring failures have been reported. Further investigation revealed broken inner springs on three delivered and four undelivered airplanes. In each case, the reduced rudder pedal centering force was caused by a failed inner spring. A preflight controls check conducted by the flight crew will detect reduced pedal force, which would indicate the failure of either spring. In the event that both the inner and outer springs fail, the pedal feel and centering forces will be lost. This condition, if not corrected, could result in pilot-induced oscillation and consequent loss of control of the airplane.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin 737-27A1259, dated May 30, 2002. The alert service bulletin describes procedures for repetitive rudder pedal force tests to measure the pedal force, and repetitive inspections of the rudder feel and centering unit to determine if an inner spring is loose or broken. Operators may choose to do either the test or the inspection. The alert service bulletin also describes procedures for replacing the spring assembly on the rudder feel and centering unit with a new assembly, and adding the suffix "R" to the serial number to indicate that the spring assembly was replaced. Replacing the spring assembly is considered corrective action for incorrect pedal force or a loose/broken inner spring, and eliminates the need for the repetitive tests/inspections. The alert service bulletin also specifies that operators submit replaced spring assemblies and identifying information to the manufacturer. Accomplishment of the actions specified in the alert service bulletin is intended to adequately address the identified unsafe condition.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design, this AD is being issued to prevent reduced rudder pedal feel and centering force, which, combined with failure of the outer spring of the spring assembly, could result in pilot-induced oscillation and consequent loss of control of the airplane. This AD requires accomplishment of the actions specified in the alert service bulletin described previously, except as discussed in the following section.

This AD also requires that operators send replaced spring assemblies to Boeing. According to the alert service bulletin, receipt of all replaced spring assemblies will ensure that discrepant springs have been removed from service. However, since the alert service bulletin was issued, Boeing has advised that the replaced spring assemblies submitted by operators will be examined for the type and level of damage sustained, so that further action based on the findings may be developed if appropriate.

Differences Between AD and Alert Service Bulletin

This AD includes Model 737-600 series airplanes. In the alert service bulletin, this model was identified in the Summary ("EFFECTIVITY"), but apparently inadvertently omitted in paragraph 1.A.1.

In addition, the applicability of this AD includes airplanes having line numbers 948 through 1108. The effectivity of the alert service bulletin includes those same airplane line numbers—but "with some exceptions." Those exceptions include four airplanes that Boeing has since advised should be included in the service bulletin effectivity. Those four airplanes have line numbers between 948 and 1108 and are therefore subject to the requirements of this AD.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NM-159-AD." The postcard will be date stamped and returned to the commenter.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

Sec. 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.airweb.faa.gov/rgl"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-16-23 Boeing: Amendment 39-12862. Docket 2002-NM-159-AD.

Applicability: Model 737-600, -700, -700C, -800, and -900 series airplanes; certificated in any category; line numbers 948 through 1108 inclusive.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent reduced rudder pedal feel and centering force, which, combined with failure of the outer spring of the spring assembly, could result in pilot-induced oscillation and consequent loss of control of the airplane, accomplish the following:

Test or Inspection

(a) Within 10 days after the effective date of this AD, do the actions specified in either paragraph (a)(1) or (a)(2) of this AD, in accordance with Part A of paragraph 3.B. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1259, dated May 30, 2002. Repeat either action at least every 20 days until the terminating action required by paragraph (b) of this AD has been done.

(1) Test the force of the rudder pedal. If the pedal force is outside the limits specified in the alert service bulletin: Before further flight, do the terminating action specified by paragraph (b) of this AD.

(2) Perform a detailed inspection of the rudder feel and centering unit to determine the condition of the inner spring. If the inner spring is loose or broken: Before further flight, do the terminating action specified by paragraph (b) of this AD.

Note 2: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Terminating Action

(b) Except as required by paragraphs (a)(1) and (a)(2) of this AD: Within 90 days after the effective date of this AD, replace the spring assembly on the rudder feel and centering unit with a new spring assembly, and ensure that the letter "R" is marked after the serial number; in accordance with Part B of paragraph 3.B. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-27A1259, dated May 30, 2002.

Reporting Requirement

(c) At the applicable time specified in paragraph (c)(1) or (c)(2) of this AD: Submit the replaced spring assembly P/N 69-57900-5, if applicable, along with a report that includes identifying information to Richard Ranhofer, The Boeing Company, Spares Distribution Center, Repair and Overhaul Area SSA111, Building 2201, Door W10, 2201 South 142nd Street, SeaTac, Washington 98168; reference SB 737-27A1259. The report must include the airplane identification (line number, serial number, omni number, or registry number), and the serial number of the rudder feel and centering unit. This may be accomplished by submitting a completed Appendix B of Boeing Alert Service Bulletin 737-27A1259, dated May 30, 2002. Information collection requirements contained in this AD have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

(1) For airplanes on which the inspection is accomplished after the effective date of this AD: Send the spring assembly and the report within 30 days after replacing the spring assembly, as required by paragraph (a) or (b), as applicable, of this AD.

(2) For airplanes on which the spring assembly has been replaced prior to the effective date of this AD: Send the spring assembly and the report within 30 days after the effective date of this AD.

Spare Parts

(d) As of the effective date of this AD, no person may install on any airplane a rudder feel and centering unit with a spring assembly that has a part number 69-57900-5 and a serial number in the range 2900 through 3101 inclusive—unless the feel and centering unit's serial number includes the suffix "R" to indicate that the spring assembly has been replaced.

Alternative Methods of Compliance

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits: Prohibited

(f) Special flight permits, in accordance with Secs. 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are prohibited for the operation of the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(g) The actions must be done in accordance with Boeing Alert Service Bulletin 737-27A1259, dated May 30, 2002. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, PO Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(h) This amendment becomes effective on September 3, 2002.

Issued in Renton, Washington, on August 7, 2002.

Vi Lipski,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 02-20513 Filed 8-15-02; 8:45 am]

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